

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YASUO MATSUMURA, KAZUHIKO YANAGIDA,
MANABU SERIZAWA, HIDEKAZU YAGUCHI,
TSUTOMU KUBO, and SHIGERU SEITOKU

Appeal 2007-1025¹
Application 10/658,811
Technology Center 1700

Decided: May 23, 2007

Before CATHERINE Q. TIMM, JEFFREY T. SMITH, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.
SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Statement of the Case

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 1-5, and 8-17.² We have jurisdiction under 35 U.S.C. § 6 (2006).

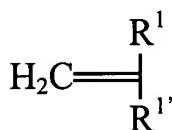
¹ An oral hearing was held on May 9, 2007.

We AFFIRM.

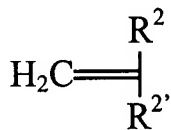
Appellants invented a toner for developing electrostatic images comprising as a main component a binder resin having a copolymer consisting of a high transition glass temperature monomer, a low transition glass temperature monomer, and a hydrophilic monomer (Specification 14). This toner composition is further defined by independent claim 1 as follows:

1. A toner for developing electrostatic images, comprising as a main component thereof a binder resin having a copolymer consisting of a combination of a high Tg monomer having a structure represented by the following structural formula (1) and a glass transition temperature of 50°C or higher, a low Tg monomer having a structure represented by the following structural formula (2) and a glass transition temperature of lower than 50°C, and a hydrophilic monomer having a structure represented by the following structural formula (3);

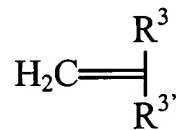
Structural
formula (1)



Structural
formula (2)



Structural
formula (3)



wherein R¹, R² and R³ independently represent a hydrogen atom, an alkyl group, an alkylester group, an alkylether group, a perfluoroalkyl group, a methoxy group, an ethoxy group, a halogen atom, a carbazole group, a pyrrolidone group, a formyl group, a cyclohexyl group, an alkyl group having a functional group, or an alkylester group having a functional group, R^{1'} and R^{2'} independently represent an alkyl group, an alkylester group, an alkylether group, a perfluoroalkyl group, a methoxy group, an ethoxy group, a halogen atom, a carbazole group, a pyrrolidone group, a formyl group, a

² According to Appellants the subject matter of claims 6 and 7 are objected to for being dependent from a rejected base claim (Br. 3).

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cyclohexyl group, an alkyl group having a functional group, or an alkylester group having a functional group, R³ represents a hydrophilic group.

The prior art set forth below is relied upon by the Examiner as evidence of obviousness:

Carlson	US 2,297,691	Oct. 6, 1942
Tanaka	US 4,504,563	Mar. 12, 1985
Kojima	US 6,214,510 B1	Apr. 10, 2001
Shiraishi	US 2003/0077534 A1	Apr. 24, 2003

Arthur S. Diamond and David S. Weiss eds., (hereafter "Diamond"), *Handbook of Imaging Materials* 155-164, 173-89, 209, 210, 217-20 (2d. ed., Marcel Dekker, Inc., New York 2002)

Claims 1-5, 13, and 16 stand rejected under 35 U.S.C. § 102(b) as anticipated by Tanaka; claims 11, 12, 14, and 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka in view of Diamond; claim 8 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Diamond in view of Shiraishi; claim 9 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, in view of Carlson; and claims 9, 10, and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Carlson in view of Kojima.

The § 102 rejection.

Claims 1-5, 13, and 16 stand rejected under 35 U.S.C. § 102(b) as anticipated by Tanaka.

Anticipation under 35 U.S.C. § 102 requires that a prior art reference describe each and every limitation of a claimed invention with "sufficient

specificity” to establish anticipation. *Atofina v. Great Lakes Chemical Corp.*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006)).

The issue presented for review with respect to this rejection is: Does the Tanaka reference have a disclosure that anticipates the claimed subject matter? We answer this question in the affirmative.

The Examiner finds that Tanaka describes a toner for developing electrostatic images comprising as a main component a binder resin having a copolymer consisting of a high transition glass temperature monomer, a low transition glass temperature monomer, and a hydrophilic monomer. The Examiner points to claim 11 of Tanaka as describing the binder component (Answer 3-4). Appellants have not disputed the Examiner’s factual findings.

Appellants contend that Tanaka does not teach in discrete embodiments the binder component of the claimed toner (Br. 10). Appellants’ contention is not persuasive. Appellants acknowledge that Tanaka’s claim 11 describes a copolymer comprising methyl methacrylate/iso-butyl methacrylate/methacrylic acid copolymer. Appellants have not argued on the written record that this copolymer does not contain a high Tg monomer, a low Tg monomer, and a hydrophilic monomer.^{3,4} Rather, Appellants argue that Tanaka does not disclose that

³ The claimed invention refers to the glass transition temperature (Tg) of a monomer. However, the glass transition temperature (Tg) is the temperature at which an amorphous polymer is transformed from a viscous or rubbery condition to a relatively hard brittle condition. Appellants have not presented information regarding the methods for determining glass transition

the monomer components of the copolymer have been chosen to have a high Tg monomer, a low Tg monomer, and a hydrophilic monomer (Br. 12). Appellants further argue that Tanaka does not provide examples relating to the preparation of the copolymer of claim 11 (Br. 12).

A reference is not limited to the descriptions of the preferred disclosure or the disclosure of the examples, all its portions must be considered for what they disclose to one of ordinary skill in the art. A person of ordinary skill in the art forming a toner composition comprising the copolymer described in Tanaka's claim 11 would have been practicing the claimed invention. Tanaka discloses the suitability of forming a copolymer comprising methyl methacrylate/butyl methacrylate/methacrylic acid copolymer to a person of ordinary skill in this art (see columns 2 and 3). *Mehl/Biophile Int'l Corp. v. Milgraum*, 192 F.3d 1362, 1366, 52 USPQ2d 1303, 1307 (Fed. Cir. 1999) ("Where, as here, the result is a necessary consequence of what was deliberately intended, it is of no import that the article's authors did not appreciate the results.")

temperature of the identified monomers. We will presume that the required Tg is based upon a homo-polymer of the identified monomer.

⁴ Contrary to the arguments of the Brief, Appellants' representative at the Hearing indicated that the copolymer of Tanaka claim 11 did not meet the requirements of the claimed invention. Appellants' representative purported to have evidence to support this position. However, such evidence was not presented to the Examiner for review prior to this appeal. This evidence was not accepted at the hearing and we have not considered it in deciding this appeal.

Regarding the rejections of claims 8-12, 14, 15, and 17 over Tanaka in view of various secondary references, we affirm the rejections for the reasons presented by the Examiner.⁵ Appellants argue that Tanaka does not describe a binder component that meets the claimed invention. The Appellants assert that each of the secondary references does not provide teachings relating to the preparation of the binder resins comprising copolymers of the specifically claimed monomer types. These arguments are not persuasive because they do not address the rejections as set forth by the Examiner. The Examiner did not rely on the secondary references for describing the binder resin comprising the claimed copolymer. The Examiner has provided factual determinations regarding the teachings of the secondary references and the suitability of combining these teachings with the Tanaka reference. Appellants have not argued that the references could not be combined in the manner suggested by the Examiner.

Based on the record of this appeal, one with ordinary skill in this art at the time of the invention would have had motivation to combine the cited references based on the reasonable expectation that the toner composition of Tanaka could comprise the features of the secondary references as suggested by the Examiner.

⁵ Claims 11, 12, 14, and 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka in view of Diamond; claim 8 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Diamond in view of Shiraishi; claim 9 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Diamond in view of Carlson; and claims 9, 10, and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Carlson in view of Kojima.

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Decision

The decision of the Examiner rejecting claims 1-5, 13, and 16 under 35 U.S.C. §102(b) as anticipated by Tanaka; claims 11, 12, 14, and 17 under 35 U.S.C. § 103(a) as unpatentable over Tanaka in view of Diamond; claim 8 under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Diamond in view of Shiraishi; claim 9 under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Diamond in view of Carlson; and claims 9, 10, and 15 under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Carlson in view of Kojima is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

clj

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